

REDUCING LEAKAGE CURRENTS IN
MEMORIES WITH PHASE-CHANGE MATERIAL

Abstract of the Disclosure

5 A memory cell including a phase-change material may
have reduced leakage current. The cell may receive signals
through a buried wordline in one embodiment. The buried
wordline may include a sandwich of a more lightly doped N
type region over a more heavily doped N type region over a
less heavily doped N type region. As a result of the
10 configuration of the N type regions forming the buried
wordline, the leakage current of the buried wordline to the
substrate under reverse bias conditions may be
significantly reduced.